

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Arnold P. Kehrli	Art Unit :	2836
Serial No. :	10/658,597	Examiner :	Dru M. Parries
Filed :	September 9, 2003	Conf. No. :	1923
Title :	LOW IMPEDANCE TRANSMISSION LINE WITH A POWER FLOW CONTROLLER		

**MAIL STOP APPEAL BRIEF-PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

AMENDMENTS TO BRIEF ON APPEAL

**In response to the notification of non-compliant appeal brief mailed Nov. 24, 2008, please amend Sections (3) and (5) of the appeal brief filed on Nov. 3, 2008, as follows:**

**(3) Status of Claims**

*Please add the following to the end of section 3:*

Claims 2, 12, and 16-18 have been canceled.

Claims 1, 3-11, 13-15, and 19-23 have been rejected, as follows:

Claims 1, 3, 5, and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication 2003/0183410 (“Sinha”) and U.S. Patent 6,344,956 (“Morita”).

Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha and Morita, and further in view of U.S. Patent 5,878,334 (“Talisa”).

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha and Morita, and further in view of Japanese Patent 11122793A (“Shimomura”).

Claims 8-9 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha and Morita, and further in view of U.S. Patent 5,420,495 (“Hingorani”).

Claims 10, 11, and 13-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha, Morita, and Hingorani.

Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha, Morita, and Hingorani, and further in view of Shimomura.

Claims 19 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha and Morita, and further in view of U.S. Patent 4,045,823 ("Parton").

Claim 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha and Morita, and further in view of U.S. Patent Publication 2002/0005668 ("Couture").

Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha and Morita.

**(5) Summary of Claimed Subject Matter**

*Please add the following to the end of section 5:*

The subject matter of the application is claimed in independent claims 1, 10, and 23. Claims 3-9 and 19-22 each depends upon claim 1. Claims 11 and 13-14 each depends upon claim 10. The independent claims are supported in the specification at least as follows:

CLAIM	SUPPORT
<b>Claim 1</b> A multi-line utility power transmission system comprising:	Fig. 3; Pg. 1, l. 14; Pg. 3, l. 28 – Pg. 4, l. 1
a first power transmission line having a first impedance characteristic;	Fig. 3 (e.g., 12 or 14); Pg. 1, ll. 14–15; Pg. 4, ll. 3–7;

a second power transmission line including a superconductor, in parallel with the first power transmission line, and having a second impedance characteristic less than the first impedance characteristic; and	Fig. 3 (e.g., 50); Pg. 1, <i>ll.</i> 15–17; Pg. 5, <i>ll.</i> 8–13;
a power flow controller, coupled to the second power transmission line, for selectively regulating during normal operating conditions of the power transmission system by a variable amount at least one of the magnitude and direction of the power flowing through the second power transmission line;	Fig. 3 (e.g., 52); Pg. 1, <i>ll.</i> 17–19; Pg. 5, <i>ll.</i> 8–10; Pg. 7, <i>ll.</i> 1–7, <i>ll.</i> 13–22; Pg. 7, <i>l.</i> 26 – Pg. 8, <i>l.</i> 1; Pg. 8, <i>ll.</i> 9–11, 19–21;
wherein the power flow controller is configured to selectively regulate the power flowing through the second power transmission line to provide at least one of	Fig. 3 (e.g., 52); Pg. 2, <i>ll.</i> 8–10; Pg. 7, <i>ll.</i> 13–22;
load balancing between the first power transmission line and the second power transmission line and flow optimization between the first power transmission line and the second power transmission line;	Pg. 7, <i>ll.</i> 1–7
wherein the power flow controller is configured to provide incremental flow change of current.	Fig. 3 (e.g., 52); Pg. 7, <i>ll.</i> 13–22; Pg. 8, <i>ll.</i> 6–21;
<b>Claim 10</b> A method comprising:	Fig. 4 (100); Pg. 2, <i>l.</i> 13; Pg. 8, <i>l.</i> 25
connecting a first power transmission line having a first impedance characteristic in parallel with	Figs. 3–4 (e.g., 12 or 14; 102); Pg. 1, <i>ll.</i> 15–16; Pg. 2, <i>l.</i> 14; Pg. 8, <i>ll.</i> 25–27

a second power transmission line including a superconductor and having a second impedance characteristic less than the first impedance characteristic;	Figs. 3–4 (e.g., 50; 104); Pg. 2, <i>ll.</i> 14–16; Pg. 8, <i>l.</i> 25 – Pg. 9, <i>l.</i> 4
supplying power to the first power transmission line and the second power transmission line;	Fig. 4 (e.g., 102, 104); Pg. 2, <i>l.</i> 16; Pg. 8, <i>ll.</i> 25–28
determining a level of power flow for the second power transmission line; and	Fig. 4 (e.g., 106); Pg. 2, <i>l.</i> 17; Pg. 8, <i>ll.</i> 28–29
selectively regulating during normal operating conditions of the power transmission system by a variable amount the power transferred through the second power transmission line to provide at least one of	Fig. 3–4 (e.g., 52; 106, 108); Pg. 3, <i>ll.</i> 5–7; Pg. 7, <i>ll.</i> 1–7, 13–22; Pg. 8, <i>ll.</i> 19–21; Pg. 9, <i>ll.</i> 1–2;
load balancing between the first power transmission line and the second power transmission line and flow optimization between the first power transmission line and the second power transmission line;	Pg. 7, <i>ll.</i> 1–7
wherein selectively regulating the amount of power transferred through the second power transmission line includes changing the flow of current incrementally.	Fig. 3–4 (e.g., 52; 106, 108); Pg. 2, <i>ll.</i> 16–17; Pg. 7, <i>ll.</i> 13–17; Pg. 8, <i>ll.</i> 6–14
<b>Claim 23</b> A multi-line utility power transmission system comprising:	Fig. 3; Pg. 1, <i>l.</i> 14; Pg. 3, <i>l.</i> 28 – Pg. 4, <i>l.</i> 1
a first power transmission line having a first impedance characteristic;	Fig. 3 (e.g., 12 or 14); Pg. 1, <i>ll.</i> 14–15; Pg. 4, <i>ll.</i> 3–7;

a second power transmission line including a superconductor, in parallel with the first power transmission line, and having a second impedance characteristic less than the first impedance characteristic; and	Fig. 3 (e.g., 50); Pg. 1, <i>ll.</i> 15–17; Pg. 5, <i>ll.</i> 8–13;
a power flow controller, coupled to the second power transmission line, for selectively regulating during normal operating conditions of the power transmission system by a variable amount at least one of the magnitude and direction of the power flowing through the second power transmission line;	Fig. 3 (e.g., 52); Pg. 1, <i>ll.</i> 17–19; Pg. 5, <i>ll.</i> 8–10; Pg. 7, <i>ll.</i> 1–7, <i>ll.</i> 13–22; Pg. 7, <i>l.</i> 26 – Pg. 8, <i>l.</i> 1; Pg. 8, <i>ll.</i> 9–11, 19–21;
wherein the power flow controller is configured to selectively regulate the power flowing through the second power transmission line to provide at least one of	Fig. 3 (e.g., 52); Pg. 2, <i>ll.</i> 8–10; Pg. 7, <i>ll.</i> 13–22;
load balancing between the first power transmission line and the second power transmission line and flow optimization between the first power transmission line and the second power transmission line;	Pg. 7, <i>ll.</i> 1–7
wherein the power flow controller is further configured to restrict a total amount of current allowed to pass through the second power transmission line while maintaining a superconductive state of the second power transmission line.	Fig. 3 (e.g., 52 & 50); Pg. 2, <i>ll.</i> 4–10; Pg. 7, <i>ll.</i> 13–22; Pg. 8, <i>ll.</i> 6–24; Pg. 9, <i>ll.</i> 5–7;

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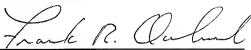
CONCLUSION

Appellant respectfully submits that with the above amendments, the appeal brief is now in compliance with § 41.37.

No fee is believed due. Please apply all appropriate charges or credits to Deposit Account No. 50-4189, referencing Attorney Docket No. 30020-189001.

Respectfully submitted,

Date: DECEMBER 23, 2003

  
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